



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/636,078

08/07/2003

Gregory S. Helwig

25334A

9843

22889

7590

06/22/2006

OWENS CORNING
2790 COLUMBUS ROAD
GRANVILLE, OH 43023

EXAMINER

TORRES VELAZQUEZ, NORCA LIZ

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/636,078

Applicant(s)

HELWIG, GREGORY S.

Examiner

Norca L. Torres-Velazquez

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-25 and 37-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-25 and 37-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 05, 2006 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1 and 3-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3-25 and 37-48 are rejected under 35 U.S.C. 102(b) as being anticipated by CHENOWETH et al. (US 4,889,764).

CHENOWETH et al. discloses a nonwoven matrix of mineral fibers (glass fibers) and synthetic fibers. The synthetic fibers are of two types: first, solid or *hollow* homogeneous synthetic fibers such as *polyester*, rayon, acrylic, vinyl, *nylon*, Kevlar®, or similar synthetic materials. The second type of fibers is bi-component core and sheath fibers of materials, typically polyesters, having distinct melting points. The bicomponent synthetic fibers include an

Art Unit: 1771

outer low melting temperature sheath and a higher melting temperature core. (Abstract; Col. 2, lines 51-60) The glass fibers have diameters of three to ten microns. (Col. 2, lines 67-68; Col. 4, lines 42-43) The reference teaches that the synthetic, second fibers 14, range from 5 to 15 denier and one to four inches in length, therefore, providing more loft to the product. (Col. 5, lines 1-5) The fibers 14 may be either straight or *crimped*, the crimped providing more loft and less density to the final product in comparison to the straight fibers. The fibers 14 may also be hollow. (Col. 5, lines 8-13) CHENOWETH et al. further teaches that the bicomponent synthetic fibers 16 include a core of regular melt homopolymer polyester. The core 18 is fully surrounded by a sheath 20 of low melt temperature copolymer polyester that is at least about 100 degrees lower than the melting/bonding temperature of the core 18. (Col. 5, lines 18-30)

The reference also teaches the inclusion of particles of a thermoplastic resin dispersed uniformly throughout the matrix. (Col. 5, lines 65-67) With regards to the amount of particles of the thermoplastic resin, the reference teaches that the quantity directly affects the maximum obtainable rigidity. (Col. 6, lines 10-12) With regard to the melting point of the second synthetic fibers, it is noted that the reference teaches that during the curing of the product the sheath of the bicomponent fiber melts and forms bonds between the fibers 12 and 14. (Refer to Col. 6, lines 23-48) It is the Examiner's interpretation that such teaching directly implies that the melting point of the second synthetic fibers is significantly higher than that of the sheath of the bicomponent fibers.

The Examiner equates the glass fibers and the first (crimped) synthetic fibers to the presently claimed structural fibers, the crimped synthetic fibers further equated to the irregularly


Art Unit: 1771

shaped fibers. The bi-component fibers meeting the claimed bi-component fibers of the present invention.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Norca L. Torres-Velazquez whose telephone number is 571-272-1484. The examiner can normally be reached on Monday-Thursday 8:00-5:00 pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Norca L. Torres-Velazquez
Primary Examiner
Art Unit 1771

June 6, 2006